

Pool Power Brome

Version number: 7.0
Replaces version of: 2018-05-14 (6)

Revision: 2018-08-02
First version: 2007-04-01

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name	<u>Pool Power Brome</u>
Registration number (REACH)	the substance is exempted from the obligation to register
EC number	251-171-5
CAS number	32718-18-6

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Disinfectant Consumer use (private households)
Uses advised against	Do not use for squirting or spraying Do not use for products which come into direct contact with the skin

1.3 Details of the supplier of the safety data sheet

Melspring International B.V. Arnhemsestraatweg 8 NL-6881 NG Velp Netherlands	Telephone: ++31 (0) 26 - 38420 - 00 Telefax: ++31 (0) 26 - 38420 - 11
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e-mail (competent person) sdb@csb-online.de

Please do not use this e-mail adress to ask for the latest safety data sheet. For this purpose contact Melspring International B.V.

1.4 Emergency telephone number

As above or next toxicological information centre.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Classification				
Section	Hazard class	Category	Hazard class and category	Hazard statement
3.10	acute toxicity (oral)	4	Acute Tox. 4	H302

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Classification				
Section	Hazard class	Category	Hazard class and category	Hazard statement
3.2	skin corrosion/irritation	1B	Skin Corr. 1B	H314
3.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318
3.4S	skin sensitisation	1	Skin Sens. 1	H317
4.1A	hazardous to the aquatic environment - acute hazard	1	Aquatic Acute 1	H400

for full text of abbreviations: see SECTION 16
 oxidising properties (solids): not applicable (EU method A.17)

The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis.

Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word danger

Pictograms

GHS05, GHS07,
GHS09



Hazard statements

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.

Supplemental hazard information

EUH031 Contact with acids liberates toxic gas.

Child-resistant fastening yes

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Tactile warning of danger yes

2.3 Other hazards

Dust explosion hazards.

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Name of substance	1-bromo-3-chloro-5,5-dimethylhydantoin
Identifiers	
CAS No	32718-18-6
EC No	251-171-5
Molecular formula	C ₅ H ₆ N ₂ BrClO ₂
Molar mass	241.5 g/mol

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Self-protection of the first aider.

Remove affected person from the danger area and lay down.

Do not leave affected person unattended.

Take off immediately all contaminated clothing.

In all cases of doubt, or when symptoms persist, seek medical advice.

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.

Following inhalation

Provide fresh air.

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.

In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Get medical advice/attention.

Following skin contact

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.

Call a physician immediately. Causes poorly healing wounds.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

Following eye contact

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Remove contact lenses, if present and easy to do. Continue rinsing.

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Following ingestion

Rinse mouth immediately and drink plenty of water.

Do NOT induce vomiting.

Call a physician in any case.

In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Notes for the doctor

none

4.2 Most important symptoms and effects, both acute and delayed

These information are not available.

4.3 Indication of any immediate medical attention and special treatment needed

Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

water, foam, alcohol resistant foam, dry extinguishing powder, carbon dioxide (CO₂)

Unsuitable extinguishing media

dry extinguishing powder (ammonia (NH₃))

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10.

Danger of dust explosion.

Deposited combustible dust has considerable explosion potential.

Oxidising properties (solids).

Hazardous combustion products

nitrogen oxides (NO_x), carbon monoxide (CO), carbon dioxide (CO₂), gas/ vapor, toxic, bromine compound, chlorine compound

5.3 Advice for firefighters

Non-combustible.

Keep containers cool with water spray.

Co-ordinate firefighting measures to the fire surroundings.

In case of fire and/or explosion do not breathe fumes.

Do not allow firefighting water to enter drains or water courses.

Collect contaminated firefighting water separately.

Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

chemical protection suit, wear self-contained breathing apparatus

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

Ventilate affected area.

Do not breathe dust.

Control of dust.

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

Do not get in eyes, on skin, or on clothing.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Knock down dust with water spray.

Keep away from drains, surface and ground water.

Retain contaminated washing water and dispose of it.

If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

take up mechanically

Advices on how to clean up a spill

Take up mechanically.

Collect spillage.

Other information relating to spills and releases

Place in appropriate containers for disposal.

Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5.

Personal protective equipment: see section 8.

Incompatible materials: see section 10.

Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Do not get in eyes, on skin, or on clothing.

Do not breathe dust.

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Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation.

Take precautionary measures against static discharge.

Removal of dust deposits.

Only vacuum cleaners containing no ignition sources may be used for combustible dusts.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Specific notes/details

Layers, deposits and heaps of combustible dust must be considered, like any other source which can form a hazardous explosive atmosphere.

Dust deposits may accumulate on all deposition surfaces in a technical room.

Danger of dust explosion.

Measures to protect the environment

Avoid release to the environment.

Advice on general occupational hygiene

Do not eat, drink and smoke in work areas.

Wash hands after use.

Preventive skin protection (barrier creams/ointments) is recommended.

Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Explosive atmospheres

Only vacuum cleaners containing no ignition sources may be used for combustible dusts.

Flammability hazards

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Take precautionary measures against static discharge.

Ground/bond container and receiving equipment.

Incompatible substances or mixtures

Incompatible materials: see section 10.

Keep/store away from combustible materials.

Oxidisers.

Store away from reducing agents.

Store away from acids.

Protect against external exposure, such as

heat, humidity, direct light irradiation, water

Consideration of other advice

Keep away from food, drink and animal feedingstuffs.

Ventilation requirements

Provision of sufficient ventilation.

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Specific designs for storage rooms or vessels

Store in a dry place. Store in a closed container.
Store in a well-ventilated place. Keep cool.
Keep locked up and out of the reach of children.

Storage temperature

recommended storage temperature: <30 °C

Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)						
Country	Name of agent	Notation	Identifier	TWA [mg/m ³]	STEL [mg/m ³]	Source
GB	dust	i	WEL	10		EH40/2005
GB	dust	r	WEL	4		EH40/2005

Notation

i inhalable fraction

r respirable fraction

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection. (EN 166).

Hand protection

Material	Material thickness	Breakthrough times of the glove material
NBR: acrylonitrile-butadiene rubber	no information available	>480 minutes (permeation: level 6)

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Wear suitable gloves.

Chemical protection gloves are suitable, which are tested according to EN 374.

Check leak-tightness/impermeability prior to use.

In the case of wanting to use the gloves again, clean them before taking off and air them well.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Particulate filter device (EN 143).

P2 (filters at least 94 % of airborne particles, colour code: White).

Environmental exposure controls

Use appropriate container to avoid environmental contamination.

Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	solid
Form	tablets
Colour	white
Odour	weak, characteristic
Odour threshold	these information are not available

Other safety parameters

pH (value)	these information are not available
Melting point/freezing point	156 – 162 °C, spontaneous decomposition
Initial boiling point and boiling range	not applicable spontaneous decomposition of the material
Flash point	not applicable
Evaporation rate	these information are not available
Flammability (solid, gas)	non-combustible
Explosion limits of dust clouds	these information are not available
Vapour pressure	3.8 mPa at 25 °C
Density	these information are not available
Vapour density	not applicable
Relative density	1.87 at 23 °C (water = 1)

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Solubility(ies)

Water solubility 2.2 g/l at 25 °C

Partition coefficient

n-octanol/water (log KOW) <1 (pH value: 7)

Auto-ignition temperature not relevant
(Solid matter)

Relative self-ignition temperature for solids not determined

Decomposition temperature 160 °C

Viscosity

Kinematic viscosity not relevant
(solid matter)

Dynamic viscosity not relevant
(solid matter)

Explosive properties dust explosion hazards

Oxidising properties shall not be classified as oxidising
EU method A.17

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

Danger of dust explosion.

Gas/ vapor, toxic In contact with Acid.

Dangerous/dangerous reactions with. Combustible materials, Organic materials.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Take precautionary measures against static discharge.

Humidity.

Control of dust.

High temperatures. (>52°C).

Extreme risk of explosion by shock, friction, fire or other sources of ignition.

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10.5 Incompatible materials

acids, bases, oxidisers, reducing agents, Combustible materials, ammonium compounds, ammonia (NH₃), hypochlorites

Release of toxic materials with:
acids

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known.
Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

If not otherwise specified the classification is based on:

Animal studies; Evidence from any other toxicity tests; Expert judgement (weight of evidence determination).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic (dermal).

Harmful if swallowed.

Inhalation.

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Exposure route	Endpoint	Value	Species	Method	Source
oral	LD50	485 mg/kg	rat	FIFRA	Supplier
oral	LD50	700 mg/kg	mouse, male	FIFRA	Supplier
dermal	LD50	>2,000 mg/kg	rabbit	FIFRA	Supplier

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

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Germ cell mutagenicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Carcinogenicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Reproductive toxicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - single exposure

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - repeated exposure

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity (acute)

Very toxic to aquatic organisms.

Endpoint	Value	Species	Method	Source	Exposure time
EC50	0.87 mg/l	daphnia	US-EPA	Supplier	48 h
LC50	0.65 mg/l	rainbow trout (<i>Oncorhynchus mykiss</i>)	US-EPA	Supplier	96 h
LC50	1.17 mg/l	bluegill (<i>Lepomis macrochirus</i>)	US-EPA	Supplier	96 h
ErC50	2 mg/l	algae (<i>Desmodesmus subspicatus</i>)	OECD Guideline 201	Supplier	72 h
EC50/3 h: 20 mg/l bacteria (OECD 209)					

Aquatic toxicity (chronic)

No data available.

12.2 Persistence and degradability

Biodegradation

Data are not available.

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Persistence

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

n-octanol/water (log KOW) <1 (pH value: 7)

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

12.6 Other adverse effects

Data are not available.

Endocrine disrupting potential

Not listed.

Remarks

Wassergefährdungsklasse, WGK (water hazard class): 2 Keep away from drains, surface and ground water.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste.

Sewage disposal-relevant information

Do not empty into drains.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1 UN number	3085
14.2 UN proper shipping name	OXIDIZING SOLID, CORROSIVE, N.O.S.
Technical name	1-bromo-3-chloro-5,5-dimethylhydantoin
14.3 Transport hazard class(es)	
Class	5.1

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Subsidiary risk(s) 8
(corrosive effects)

14.4 Packing group III


14.5 Environmental hazards hazardous to the aquatic environment

14.6 Special precautions for user
Provisions for dangerous goods (ADR) should be complied within the premises.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
The cargo is not intended to be carried in bulk.

14.8 Information for each of the UN Model Regulations


Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)

UN number	3085
Proper shipping name	UN3085, OXIDIZING SOLID, CORROSIVE, N.O.S., (1-bromo-3-chloro-5,5-dimethylhydantoin), 5.1 (8), III, (E), environmentally hazardous
Class	5.1
Classification code	OC2
Packing group	III
Danger label(s)	5.1+8, fish and tree
	
Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	274
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
Transport category (TC)	3.
Tunnel restriction code (TRC)	E
Hazard identification No	58
Emergency Action Code	1W


International Maritime Dangerous Goods Code (IMDG)

UN number	3085
Proper shipping name	UN3085, OXIDIZING SOLID, CORROSIVE, N.O.S., (1-bromo-3-chloro-5,5-dimethylhydantoin), 5.1 (8), III, MARINE POLLUTANT

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Class	5.1
Subsidiary risk(s)	8
Marine pollutant	yes (hazardous to the aquatic environment)
Packing group	III
Danger label(s)	5.1+8, fish and tree
	
Special provisions (SP)	223, 274
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
EmS	F-A, S-Q
Stowage category	B

International Civil Aviation Organization (ICAO-IATA/DGR)

UN number	3085
Proper shipping name	UN3085, Oxidizing solid, corrosive, n.o.s., (1-bromo-3-chloro-5,5-dimethylhydantoin), 5.1 (8), III
Class	5.1
Subsidiary risk(s)	8
Environmental hazards	yes (hazardous to the aquatic environment)
Packing group	III
Danger label(s)	5.1+8
	
Special provisions (SP)	A3
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

not listed

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List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

not listed

Seveso Directive

2012/18/EU (Seveso III)			
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements	Notes
E1	environmental hazards (hazardous to the aquatic environment, cat. 1)	100 200	56)

Notation

56) hazardous to the Aquatic Environment in category Acute 1 or Chronic 1

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

not listed

Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

not listed

Regulation 648/2004/EC on detergents

Labelling of contents	
Wt%	Constituents
	disinfectants

Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)

not listed

Regulation 98/2013/EU on the marketing and use of explosives precursors

not listed

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance by the supplier.

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SECTION 16: Other information

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)
2.2		Child-resistant fastening: yes
2.2		Tactile warning of danger: yes

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)

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Abbr.	Descriptions of used abbreviations
STEL	Short-term exposure limit
SVHC	Substance of Very High Concern
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. 2016 - ATP 9 2016/1179.

Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).

International Maritime Dangerous Goods Code (IMDG).

Dangerous Goods Regulations (DGR) for the air transport (IATA).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.

Responsible for the safety data sheet

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Disclaimer

This information is based upon the present state of our knowledge.

This SDS has been compiled and is solely intended for this product.